

Investigation of the Chemistry of Organic Oxides.
XIV. Reaction of the α -Oxide of Isoprene with
Ammonia and Amines, by V. M. Albitskaya, A. A.
Petrov, 6 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXVIII,
No 4, 1958, pp 901-903.

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Conjugated Systems. XVIII. Interaction of Chloro-
prene with Chlorine, by A. A. Petrov, 12 pp.

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Sci Tr Ctr RT-3817

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Aug 56 CTS/dex

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Sci Tr Center
RT - 3860

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Condensation of Butynone With Cyclic Dienic
Hydrocarbons, by A. A. Petrov, N. P. Sopov,
pp.

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No 6, Jun 1953, USSR, pp 1034-1037. CIA ID 102359

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XVIII. Order of Addition of Alkyl
Iodides to Chloroprene Homologs, by
A. A. Petrov, E. A. Leporskaya, 8 pp.

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Conjugated Systems. XLIX. The Problem of the
Order of Addition of Alkyl Hypohalites to
Tertiary Vinylacetylenic Alcohols, by A. A.
Petrov, E. S. Bravo, V. V. Davidovich, O. S.
Dyatkova, G. V. Kuznetsova, 4 pp.

RUSSIAN, no per, Zhur Obshch Khim, Vol XXIII,
No 7, Jul 1953, USSR, pp 1120-1123.

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Scientific - Chemistry

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Full tr

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Dec 56 CFS

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Chloro- and 3-Bromohexadiene-1,3, by E. A.
Leporskaya, ~~nn~~ A. A. Petrov, 8 pp.

RUSSIAN, no per, Zhur Obshch Khim, Vol XXIV,
No 6, Jun 1954, pp 1005-1013. CIA C 40406

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Jen 56 CTS/DEX

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Investigations of Conjugated Systems. LX LVI.
Condensation of Diene Hydrocarbons with Propargyl
Aldehyde, by A. A. Potrov, 8 pp.

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Scientific - Chemistry
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LVII. Condensation of Propargyl Aldehyde With
Piperylene and Isoprene, by A. A. Petrov, N. P.
Sopov, 6 pp.

RUSSIAN, no per, Zhur Obshch Khim, Vol XXV, No 3,
USSR, Mar 1955, pp 517-522. CIA C 39388

Consultants Bureau

Scientific - Chemistry
CIS 74/Nov 55

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Research in the Field of Conjugated Systems. LII.
Concerning the Sequence of Bromine Addition to
Vinylacetylenes, by A. A. Petrov, Yu. I.
Porfiryeva, 6 pp.

Full translation.

RUSSIAN, no per, Zhur. Obshch Khim, Vol XXIII, No 11,
1953, pp 1857-1872. CIA D 151246

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RUSSIAN, no per, Zhur Obshch Khim, USSR, Vol XXV, No 4, Apr 1955, pp 739-743. CIA C 39500

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N-Vinylpyridine With Diene Hydrocarbons, by
A. A. Petrov, V. Lyudvig, 4 pp.

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Sep 56 CTS

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Halides to Diene Hydrocarbons, by A. A. Petrov,
K. V. Leuts, 8 pp.

RUSSIAN, no per, Zhur Obshch Khim, Vol XXVI, No 4,
Apr 1956, pp 1113-1120.

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Feb 1957 (TB/6m)

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Conjugated Systems. LXII. The Condensation of
Dienic Hydrocarbons With Propiolic Acid and Its
Methyl Ester, by A. A. Petrov, K. B. Rall, 6 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXVI, No 6,
Jun 1956, pp 1588-1592.

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Benzenesulfodichloramide on Alcoholic Solutions
of Piperlyene, by T. A. Zyryanova, A. A. Petrov,
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LXIV. The Action of Benzosulfonibromamides on
Solutions of Piperylene in Methyl and Ethyl Alcohols,
by T. A. Zhyzhenova, A. A. Petrov, 8 pp.

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Jul 1956, pp 1918-1925.

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LIV. Hydrogenation of Vinylalkylacetylenes in the
Presence of Colloidal Palladium, by Kh. V. Baiyan,
A. A. Fetisov, Yu. I. Porfiryeva, 10 pp.

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Jul 1956, pp 1925-1935.

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LXVI. The Action of Benzosulfodichloro- and Benzosul-
fodibromoamide on Alcohol Solutions of Isoprene, by
T. A. Zyryanova, A. A. Petrov, 6 pp.

RUSSIAN, no per, Zhur Obshch Khim, Vol XXVI, No 8,
1956, pp ~~2189-2194~~ 2189-2194.

Consultants Bureau

Sci - Chem

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LXVII. Condensation of Propargylaldehyde With
2-Halogeno- and 2-Alkoxybutadienes, by A. A. Fetsov,
N. P. Sopov, 6 pp.

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Sept 1956, pp 2452-2457.

Consultants Bureau

Sci - Chemistry
Feb 58

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LXVIII. Diene Syntheses With Fluoroprene. I.
Condensations of Fluoroprene With α, β -Unsaturated
Aldehydes and Ketones, by A. A. Petrov, A. V. Tumanov
6 pp.

RUSSIAN, no per, Zhur Obshch Khim, Vol XXVI, No 10,
Oct 1956, pp 2744-2748.

Consultants Bureau

Sci : Chemistry
Mar 58

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with Fluoroprene. II. Condensation of
Fluoroprene with Derivatives of α, β -
Unsaturated Monobasic Acids, by A. A.
Petrov, A. V. Tumanova, 6 pp

RUSSIAN, no per, Zhur Obshch Khim SSSR, Vol XXVI,
No 11, 1956, pp 2991-2994.

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the Esters of α, β -Unsaturated Dibasic Acids,
by A. A. Petrov, A. V. Tuzanova, 4 pp.

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No 11, 1956, pp 2995-2997.

Consultants Bureau

Sci - Chem
Jul 58

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Conjugated Systems. LXXI. Dimerization of
Fluoroprene, by A. A. Petrov, A. V. Tumanova,
6 pp.

RUSSIAN, no per, Zhur Obshch Khim, Vol XXVI,
No 12, 1956, pp 3314-3318.

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tylenes, by Kh. V. Balyan, A. A. Petrov and
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RUSSIAN, Per, Zhur Obshch Khim, Vol XXVII, No 2,
1957, pp 365-~~368~~. 369.

Consultants Bureau

Sci - Chem

Jul 58

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LXXIII. The Order of Addition of Bromine to Vinyl-
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Sopov, 5 pp.

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pp 928-932.

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carbons, by A. A. Petrov, Yu. I. Porfiryeva
and G. I. Semenov, 8 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXVII,
No 5, 1957, pp 1167-1174.

Consultants Bureau

Sci - Chem

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Sep 58

Investigations in the Field of Conjugated
Systems. LXXIV. The Interaction of
Propargylironide with Aliphatic Alde-
hydes under the Conditions of the Reform-
atskiy Reaction, by A. A. Petrov, Yu. I.
Porfiryeva and G. I. Semenov, 1 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXVII,
No 5, 1957, pp 1175-1178.

Consultants Bureau

Sci - Chem
Sep 58

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LXXVI. The Order of Bromine Addition to Alkyl-
and Isoalkenylacetylenes, by A. A. Petrov and Yu.
I. Porfireva, 8 pp.

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1957, pp 1805-1813.

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RUSSIAN, per, Zhur Obshch Khim, Vol XXVII, No 8, 1957, pp 2076-2080.

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Combination Scattering Spectra and Reactivity
of Vinylacetylene Hydrocarbons, by A. A. Petrov,
V. A. Kolesova, Yu. I. Porfirjeva, 6 pp.

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XIII. Far, Zhur Obshch Khim, Vol XXVII, No 8,
1957, pp 2080-2087.

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Oct 58

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The Investigation of Conjugated Systems. LXXXI.
The Order of Bromine Addition to Dialkylvinylethynyl-
carbinols, by A. A. Petrov, K. B. Rall, 4 pp.

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Consultants Bureau

Sci - Chem
Oct 58

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Investigations on Conjugated Systems. LXXXI. Infra-
red Spectra of Some α -Unsaturated Acetylenic
Aldehydes and Ketones, by A. A. Petrov, G. I.
Borodov, 4 pp.

RUSSIAN, *Dokl. Akad. Nauk SSSR*, Vol XXVII, No 11,
1957, pp 2947-2950.

Consultants Bureau

Sci - Chem

Jan 59

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Investigations on Conjugated Systems. LXXIII.
The Structure and Reactivity of the Methyl
Ester of Vinylacetylene Carboxylic Acid, by
A. A. Petrov, E. B. Pall, and E. I. Semenov,
I, SP.

RUSSIAN, per, Zhur Obshch Khim, Vol XXVIII,
No 2, 1958, pp 424-427.

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Sci - Chem

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Investigations in the Field of Conjugated Spi
Systems LXXXIV: Diene Compounds. I. Synthesis
and Properties of B-Alkoxydivinylacetylenes
(Enol Ethers of Methylvinylethynyl Ketone). by
A. A. Petrov, 3 pp.

RUSIAN, per, Zhur Obshch Khim, Vol XXVIII, No 3,
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May 59

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Condensation of Halodienes with Acetylenedicarboxylic
Ester, by V. E. Miklashovskaya, A. A. Petrov.

RUSSIAN, per, Zhur Obshchei Khim, Vol XXVIII, No 5,
1958, pp 1125-1127.

ATB RJ-1661

Sci - Chem

Jul 59

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Studies in the Field of Conjugated Systems.

LXXXVI. The Combination of Piperylene Hydrochloride with Isoprene, by A. A. Petrov, N. A. Razumova, M. L. Genusov, 5 pp.

RUSSIAN, per Zhur Obshch Khim, Vol XXVIII,
No 5, 1958, pp 1128-1131.

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Sci - Chem
Jul 59

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Investigations on Conjugated Systems. LXXX. Infra-
red Spectra of Some Acetylenic and Vinylacetylenic
Alcohols, by A. A. Petrov, G. I. Benenov, 6 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXVII, No 11,
1957, pp 2941-2946.

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Sci - Chem

Jan 59

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Investigations of Conjugated Systems, XCII,
Sequence of Addition of Iodine to Vinylacetylenic
Hydrocarbons, by A. A. Petrov, Yu. I. Porfir'eva,
T. V. Yelovleva, K. S. Mingaleva, 5 pp.

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1958, pp 2320-2324.

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Oct 59

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Investigations of Conjugated Systems. XCIII. The
Sequence of Addition of Alkyl Hypochromites to
Vinylalkylacetylene, by A. A. Petrov, Yu. I.
Porfir'eva, G. I. Semenov, 4 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXVIII, No 9,
1958, pp 2325-2327.

CB

Sci - Chem
Oct 59

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Investigations of Conjugated Systems. CXX. Addition
of Alkylolithiums to Vinylisopropenylacetylene,
by A. A. Petrov, V. A. Korner, T. V. Yakovleva, 5 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXX, No 7, 1960,
pp 2238-2242.

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CB 166, 307

Sci

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Investigations of Conjugated Systems. CXXI. Addition
of Alkylolithiums to Trialkylvinylethynylsilanes,
by A. A. Petrov, V. A. Kormer, M. D. Stadnichuk,
et al.

RUSSIAN, per, Zhur. Obshch Khim, Vol. XXX, No 7, 1960,
pp 2243-2247.

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166, ~~309~~

Sci

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A. P. M. R. Study of the Energy Transfer Processes
Occuring During the Radiolysis of Certain Frozen
Hydrocarbons, by Yu. N. Molin, I. I. Chkheydze,
Al. A. Petrov, 4 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXXI, No 1,
1960, pp 125-128.

CB

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Petrov, A. A., Kormer, V. A., and Savich, I. G.
MECHANISM OF LITHIUM-ALKYLS ADDITION TO
ENYNE-HYDROCARBONS. [1961] 2p. 6 refs.
Order from OTS or SLA \$1.10 61-18584

Trans. of Zhur[nal] Obshchei Khimii (USSR) 1960,
v. 30 [no. 12] p. 3845-3846.

DESCRIPTORS: *Lithium compounds, Alkyl radicals,
*Hydrocarbons, Chemical reactions, Infrared
spectroscopy.

(Chemistry--Organic, TT, v. 6, no. 9)

61-18584

I. Petrov, A. A.
II. Kormer, V. A.
III. Savich, I. G.

Office of Technical Services

HQ PTD (TLBDR-1)

BT66-17-511T

Dup check for info only

Strain of a cylindrical blade ~~work~~ under the action
of shock loading

Petrov, A. A.

Russian collection: Trudy. Leningr. Korabelstroit.
In-ta, part 43, 137-151-, 1964

Synthesis and Properties of $C_{12}-C_{16}$ Monomethyl-
alkanes, by Al. A. Petrov, et al.

RUSSIAN, PER, Iz Ak Nauk SSSR: Otdel Khim Nauk,
1949, pp 1053-1099.

Dept of Interior
Tr No 226

Sci

Jan 63

62-20159

1. Petrov, A. B.

Petrov, A. B.
THE EFFECT OF THE IMPURITIES IN ARGON ON
THE QUALITY OF ARGON-ARC WELDS. [1962]. [18]p.
Order from OTS or SLA \$1.60 62-20159

Trans. of Avtogennoe Delo (USSR) 1952, v. 23, no. 9,
p. 5-8.

DESCRIPTORS: *Argon, Impurities, *Arc welds,
Aluminum alloys, Quality control

(Metallurgy, TT, v. 9, no. 11)

Office of Technical Services

TT-64-14914

Petrov, A. D., Ponomarenko, V. A., Mikhitarian,
L. L., and Snegova, A. D.

THE SYNTHESIS AND PROPERTIES OF MONOCHLORO
DERIVATIVES OF ETHYL SILANE CHLORIDES. [1964]

Bp (figs omitted) 10 refs

Order from OTS, SLA, or ETC \$1.10 TT-64-14914

Trans. of Akademiya Nauk SSSR. Doklady, 1955, v. 100,
no. 6, p. 1107-1110.

I. Petrov, A. D.
II. Ponomarenko, V. A.
III. Mikhitarian, L. L.
IV. Snegova, A. D.

(Chemistry--Organic, TT, v. 11, no. 11)

Office of Technical Services

Petrov, A. D.
ANTIKNOCK PROPERTIES AND FOUR POINTS OF
INDIVIDUAL HYDROCARBONS OF THE DIESEL
FUEL RANGE. L. [1962] 6p 4refs
Order from OTS or SLA \$1.10

62-14126

Trans. of Akademiya Nauk SSSR, Otdelenie Khimicheskikh Nauk, Izvestiya, 1961, no. 1, p. 145-155.
Also available from OTS or SLA \$2.60 in 61-20795
[1961] 25p.

DESCRIPTORS: *Fuel oil, *Antiknock, *Hydrocarbons,
Methanes, Ethylenes, Naphthenes, Benzenes, Toluenes,
Cyclohexanes, Heptanes, Decenes.

(Materials--Fuels, TT, v. 10, no. 10)

62-14126

I. Petrov, A. D.

1252507

Office of Technical Services

Petrov, A. D. and Kaplan, E. P.
SYNTHESIS AND PROPERTIES OF ISOPARAFFIN
HYDROCARBONS OF THE COMPOSITION $C_{12}-C_{22}$
COMMUNICATION 2. [1963] 9p. 15 refs.
Order from OTS or SLA \$1.10

63-16801

Trans. of Zhurnal Obshchei Khimii (USSR) 1942, v. 12
[no. 1/2] p. 99-103.
An abstract trans. is available from OTS or SLA \$1.60
as 61-20323 [1961] 18p.

DESCRIPTORS: *Alkanes, *Alkenes, *Ethyl radicals,
*Methyl radicals, *Butyl radicals, Hydrocarbons,
Physical properties, Chemical properties, Bromides,
Synthesis (Chemistry).

The following hydrocarbons were synthesized for the
first time: 4,5-diethyloctane, 2,7-dimethyl-4,5-
diethyloctane, 7,8-diethyltridecane, 5,6-diethyl-
(Chemistry--Organic, TT, v. 10, no. 7) (over)

63-16801

I. Petrov, A. D.
E. Kaplan, E. P.

1247266

Office of Technical Services

Synthesis of Organosilicon Monomers; by A. D.
Petrova.
RUSSIAN.
Heywood and Company Ltd.,

Sci - Chem
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Synthesis of Organosilicon Monomers, by 58
A. B. Petrov, V. P. Mironov, et al. 492 pp.
RUSSIAN, bk, 1964.
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Mar 68

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A. D. Petrov

Petrov, A. D., Mironov, V. P., Ponomarenko, V. A.
and Chernyshev, E. A.
SYNTHESIS OF ORGANOSILICON MONOMERS.
1963, approx 575p
Order from CB \$22.50

Trans. of mono. [Sintez Kreml'organticheskikh
Monomerov, Moscow, 1961, 559p.].

DESCRIPTORS: *Organic compounds. *Silicon com-
pounds. Synthesis (Chemistry), Plastics, Rubber,
Polymers.

(Chemistry--Organic, TT, v. 19, no. 12)

63-12531

- I. Petrov, A. D.
- II. Mironov, V. P.
- III. Ponomarenko, V. A.
- IV. Chernyshev, E. A.
- V. Consultants Bureau
Enterprises, Inc.,
New York

Office of Technical Services

— Petrov, A. D.

SYNTHETIC LUBRICATING OILS, [1961] 13p 15rufa
Order from OTS, SLA, or BTC \$1.60 TT-61-16608

Trans. of Khimiya Tverdogo Topliva (USSR) 1934,
v. 5, p. 632-641.

DESCRIPTORS: *Synthetic lubricants, *Lubricants,
*Oils, Polymerization, Aluminum compounds,
Chlorides, Electric discharges.

TT-61-16608

I. Petrov, A. D.

11-57785

(Materials--Lubricants, TT, v. 11, no. 3)

Office of Technical Services

Synthesis of Organosilicon Monomers, by A.D. Petrov,
V.F. Mironov et al.

RUSSIAN, bk, 1961.

CB

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Nov 61

Synthesis of Organosilicon Monomers With
Nitrile Groups, by A. D. Petrov, Ye. P.
Zakharov, et al., 8 pp.

RUSSIAN, per, Zhur Prikladnoy Khim,
Vol XXV, No 2, 1962, pp 335-389. 9667325

FTD-TT-62-1260

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Jan 63

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Synthesis of Branched C_{12} - C_{16} Acids in the C_nH_{2n+1}
COOH Series,

by G. I. Mikishin, Yu. N. Ogibin, A. D. Petrov, 6 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXX, No 7, 1960,
pp. 2148-2152.

CB

551
166, 289

Sci

Aug 61

Organosilicon Compounds Containing a Cyano-Group,
by V. M. Vdovin, A. D. Petrov. 15 pp.

RUSSIAN, per. Uspekhi Khim. No 7, 1962, pp 793-821.

CS

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Mar 63

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THE REACTION BETWEEN ALKENYL- AND ARYLHALOGENIDES
AND TRIARYLSILANES AT HIGH TEMPERATURES,
BY A. D. PETROV, Y. E. FISHER, 5 PP.

RUSSIAN, PER, ZHUR OBSHCH KHIM, VOL XXXII, NO 3,
1962, PP 698-703.

CB

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THE EFFECT OF TEMPERATURE ON THE DIRECTION OF
THE REACTION OF ALIPHATIC ESTERS WITH LITHIUM ALKYL,
BY A. D. PETROV, E. P. KAPLAN, 6 PP.

RUSSIAN, PER, ZHUR OBSHCH KHM, VOL XXXII, NO 3,
1962, PP 693-697.

CB

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FEB 63

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Alcohols and the Protective Properties of their
Monolayers against Evaporation in Reservoirs, by
A. D. Petrov, A. A. Trapeznikov, 4 pp.

RUSSIAN, per, Dok Ak Nauk SSSR, Vol CXXXVIII,
(CHEMISTRY), No 6, 1961, pp 1395-1398.

CB

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Nov 62

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Organosilicon Compounds With Hydrocarbon Bridges
Between Silicon Atoms IV. The Pyrolysis of
 α,ω -Disilalkanes, by A. D. Petrov, et al, 5 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXXI, No 10,
1961, pp 3230-3233.

CB

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Sep 62

211,759

SYNTHESIS OF SILICON-, GERMANIUM-, AND TIN-~~XXXXXXXX~~
CONTAINING PARA-SUBSTITUTED STYRENES AND α -
METHYLSTYRENES, BY A. D. PETROV, F. A. CHERNYSHEV,
4pp.

RUSSIAN, PER, DOK AK NAUK SSSR, VOL CXL, NO 4,
1961, PP 837-840.

CB

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JUL 62

204,364

Synthesis and Properties of Di- and Triphenylalkanes.
Communication 4. Selective Hydrogenation of Di-
and Triphenylalkanes Over PtO_2 , by M. A. Chel'tsova,
A. I. Petrov, 7 pp.

RUSSIAN, PER, Iz Akh Nauk SSSR, Otdel
Khim Nauk, No 2, 1961, pp 294-301.

(3)

Sci

Jan 62

198, k 811

Catalytic Disproportionation of Alkyl (and
Alkenyl) Dichlorosilanes, by A. D. Petrov,
V. M. Vdovin, pp 8

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk,
No 3, 1960, pp 519-526.

CB

195,362

Sci
May 62

The Preparation of Organosilicon Derivatives of Bicyclo-
(2,2,1) Heptane, by A. D. Petrov, A. F. Plate, E. A.
Chernyshev, 8 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXXI, No 4, 1961,
pp. 1199-1208

CB

196,693

Sci
Apr 62

Synthesis and Properties of p-Dialkylbenzenes,
by A. D. Petrov, G. I. Nikishin, 7 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk,
No 4, 1960, pp 717-723.

CB

Sci

May 62

194,446

Petrov, A. D., Krutov, K. M., and Khrenov, I. M.
SYNTHESIS AND PROPERTIES OF ETHYLPROPYL-
CYCLOHEXYLMETHANE AND ISOPROPYLHEXYL-
CYCLOHEXYLMETHANE. [1961] 3p. 7 refs.
Order from OTS or SLA \$1.10

61-20147

Trans. of Zhurnal Obshchei Khimii (USSR) 1945,
v. 15, p. 799-801.

DESCRIPTORS: Synthesis, *Methanes, Antiknock,
Octanes, Petroleum, Hydrogenation, Ethylenes,
Cyclohexanes, Molecular structure, Alcohols, *Fuels,
*Aviation fuels, Ethyl radicals, Propyl radicals,
Hexyl radicals.

Ethylpropylcyclohexylmethane and isopropylhexyl-
cyclohexylmethane, not previously reported in the
literature, were synthesized. The pour points of these
hydrocarbons and their antiknock properties expressed

61-20147

I. Petrov, A. D.
II. Krutov, K. M.
III. Khrenov, I. M.

184243

Office of Technical Services

61-16883

Petrov, A. D. and Voronova, A. V.

ANTI-KNOCK PROPERTIES OF SOME BINARY MIX-
TURES. [1961] [1] p. 4 refs.

Order from OTS or SLA \$1.10

61-16883

Trans. of [Akademiya Nauk SSSR]. Comptes Rendus
(Doklady) de l'Academie des Sciences de l'U.R.S.S.,
1941, v. 31, no. 8, p. 765-766.

DESCRIPTORS: *Hydrocarbons, *Heptanes, Antiknock.

Octane numbers of mixtures such as polymer gasoline cannot be derived from the octane numbers of individual pure compounds by simple calculation. An investigation of the change of octane numbers of five binary mixtures with the proportions of their components was carried out and the conclusions drawn were compared with those drawn by Smittenberg, Hoog, Moerbeek and

I. Petrov, A. D.

II. Voronova, A. V.

61-16934

Petrov, A. D. and Shchukin, V. I.
ISOMERIZATION OF NORMAL HEPTENE TO
METHYLDIETHYLETHYLENE AND OF NORMAL
OCTENE TO DIMETHYLBUTYLETHYLENE. [1961]

Sp. 8 refs.

Order from OTS or SLA \$1.10

61-16934

Trans. of Zhurnal Obshchei Khimii (USSR) 1941, v. 11,
p. 1092-1095.

DESCRIPTORS: *Octenes, Isomerism, Chain reactions,
*Ethylenes, *Hydrocarbons, Raman spectroscopy,
Heptenes, Methyl radicals, Ethyl radicals, Butyl
radicals.

Isomerization of normal 1-heptene to methyldiethyl-
ethylene and of normal 1-octene to dimethylbutylethyl-
ene was established. The difference in the schemes of
isomerization of normal olefins into branched chain

I. Petrov, A. D.
II. Shchukin, V. I.

Petrov, A. D., Verentsova, N. I., and
Kokleeva, T. A.
SYNTHESIS OF 2-METHYL-4-HEXYNE AND
2,6-DIMETHYL-3-HEPTYNE. [1961] 5p. 12 refs.
Order from OTS or SLA \$1.10 61-16935

Trans. of Zhurnal Obshchei Khimii (USSR) 1941,
v. 11, p. 1096-1099.

DESCRIPTORS: Hydrocarbons, Synthesis, Antiknock,
*Fuels, Methyl radicals, *Heptynes, *Hexynes.

Synthesis of two new hydrocarbons is reported,
2-methyl-4-hexyne and 2,6-dimethyl-3-heptyne. Anti-
knock properties of acetylenic hydrocarbons have been
evaluated. (Author)

(Chemistry--Organic TT, v. 6, no. 9)

61-16935

I. Petrov, A. D.
II. Verentsova, N. I.
III. Kokleeva, T. A.

Office of Technical Services

Petrov, A. D. and Karlik, L. D.
SYNTHESIS OF GLYCOLS OF THE ACETYLENE
SERIES. [1961] 5p. 16 refs.
Order from OTS or SLA \$1.10

61-16936

Trans. of Zhurnal Obshchei Khimii (USSR) 1941, v. 11,
p. 1100-1103.

DESCRIPTORS: *Glycols, Synthesis, *Acetylenes,
Alcohols, Antiknock.

Synthesis of three acetylenic γ -glycols is reported:
5-decyne-4,7-diol, 9-octadecyne-8, 11-diol, 10, 13-
dimethyl-11-docosyne-10, 13-diol. The method of
synthesis of glycols and alcohols of the acetylene
series suggested by L. Kazaryan was tested. Anti-
knock properties of acetylene alcohols and their sus-
ceptibility to tetraethyllead was studied. (Author)

61-16936

I. Petrov, A. D.
II. Karlik, L. D.

Office of Technical Services

61-16937

Petrov, A. D., Pavlov, A. M., and Makarov, Yu. A.
SYNTHESIS OF 3-ETHYLDECANE AND 2,5-DI-
METHYLUNDECANE. [1961] 3p. 4 refs.

Order from OTS or SLA \$1.10

61-16937

I. Petrov, A. D.
II. Pavlov, A. M.
III. Makarov, Yu. A.

Trans. of Zhurnal Obshchei Khimii (USSR) 1941, v. 11,
p. 1104-1106.

DESCRIPTORS: Synthesis, Antiknock, Halogenation,
*Hydrocarbons, Chain reactions, *Fuels, Ethyl
radicals, Methyl radicals.

Syntheses of two new paraffins are reported, 3-ethyl-
decane and 2,5-dimethylundecane. Antiknock properties
and pour points of three normal and branched chain
paraffins with 12 and 13 carbon atoms have been
evaluated. (Author)

(Chemistry--Organic. TT, v. 6, no. 9)

Office of Technical Services

Petrov, A. D. and Lapteva, E. I.
SYNTHESIS AND PROPERTIES OF SOME HIGHER
HOMOLOGS OF KINZENE. [1961] 5p. 12 refs.
Order from OTS or SLA \$1.10 61-16938

Trans. of Zhurnal Obshchei Khimii (USSR) 1961, v. 31,
p. 1107-1110.

DESCRIPTORS: "Benzenes, Synthesis, Antiknock,
Chain reactions, Hydrocarbons.

Three new homologs of benzene with branched side
chains were synthesized, methylheptylphenylmethane,
diisobutylheptylphenylmethane and dimethylpentadecyl-
phenylmethane. Antiknock properties of these and some
other representatives of the series C_6H_5R with
branched and normal paraffin chains were evaluated.
(Author)

61-16938

I. Petrov, A. D.
II. Lapteva, E. I.

Office of Technical Services

(Chemistry--Organic) TT 6 6 7

Synthesis and Properties of Branched Acids, Series Gallen
COOH, Composition C₁₀H₁₈O₂, by II. G. I. Wikishin, Yu. D.
Orzhir, A. D. Petrov, 1950, 1510 pp.

RUSSIAN, per, Zhur' Obshch Khim, Vol XXX, No 11, 1950,
pp 3543-3547

Sci
Oct 61

177,520

61-16870

Petrov, A. D. and Azatyan, V. D.
SYNTHESIS OF HYDROCARBONS OF THE ACETYLENE SERIES. [1961] [14]p. 115 refs.
Order from OTS or SLA \$1.60 61-16870

Trans. of Uspekhi Khimii (USSR) 1940, v. 9, no. 5,
p. 498-521.

DESCRIPTORS: *Hydrocarbons, *Acetylenes,
Synthesis.

The first part of a program of synthesis of acetylenes and evaluation of their antiknock properties is reported. The literature on the subject is reviewed, physical constants of 57 known acetylenes are tabulated and a bibliography given comprising 115 items including unpublished work of the author and his co-workers. Blending octane numbers of five acetylenes were obtained. (Author)

(Chemistry--Organic, TT, v. 6, no. 7)

I. Petrov, A. D.
II. Azatyan, V. D.

Office of Technical Services

61-18176

Petrov, A. D., Koptev, V. I., Kaplan, E. P.
SYNTHESIS AND PROPERTIES OF ISOPARAFFINS
WITH FROM 9 TO 12 CARBON ATOMS. [1961] Sp...
12 refs.

Order from OTS or SLA \$1.10

61-18176

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk. Izvestiya, 1944 [no. 1] p. 152-155.

DESCRIPTORS: *Hydrocarbons, Synthesis, Molecular
isomerism; Antiknock, Properties.

Synthesis of five isoparaffins with from 9 to 12 carbon
atoms and different extent of branching of the chain was
effected through the tertiary alcohols by a Grignard
reaction; of these, 2, 2, 3, 5-tetramethylhexane was
synthesized for the first time. It was shown that hydro-
carbons of the above mentioned composition possessing
two quaternary carbons or one quaternary and two
tertiary carbon atoms have high octane numbers of the
order of about 100. (Author)

(Chemistry--Organic, TT, v. 6, no. 6)

- I. Title: Isoparaffins
- I. Petrov, A. D.
- II. Koptev, V. I.
- III. Kaplan, E. P.

Office of Technical Services

Petrov, A. D. and Vitikh, M. V.
SYNTHESIS AND PROPERTIES OF ISOPARAFFIN
HYDROCARBONS WITH 13 TO 24 CARBON ATOMS IN
THE MOLECULE. [1961] 5p. 6 refs.
Order from OTS or SLA \$1.10 61-18174

Trans. of Akademiya Nauk SSSR. Otdelenie Khimi-
cheskikh Nauk. Izvestiya, 1944 [no. 1] p. 238-242.

DESCRIPTORS: *Hydrocarbons, Molecular isomerism,
Synthesis, Properties.

On the example of six isoparaffins with a T-like struc-
ture containing from 13 to 24 carbon atoms in the
molecule, for the most part newly synthesized com-
pounds, it was demonstrated that the hydrocarbons of
this type with from 21 to 24 carbon atoms are dis-
tinguished by cetene numbers close to 100 and
sufficiently low pour points. (Author)

(Chemistry--Organic, TT, v. 6, no. 6)

61-18174

1. Title: Isoparaffins
- I. Petrov, A. D.
- II. Vitikh, M. V.

Office of Technical Services

61-18010

Petrov, A. D.
FUEL FOR HIGH SPEED DIESELS [1961] 7p. 13 refs.
Order from OTS or SLA \$1.10 61-18010

Trans. of Akademiya Nauk SSSR, Otdelenie Khimicheskikh Nauk. Izvestiya, 1961, no. 4/5, p. 533-543.

DESCRIPTORS: *Diesel engines, *Fuel oil, *Aviation fuels

A discussion is given of cracked Diesel fuels and the outlook for synthesis of low pour point components of fuels for aviation Diesels. (Author)

L. Petrov, A. D.

Office of Technical Services

(Materials--Fuels. TT, v. 6, no. 6)

Synthesis and Reactions of Organo-Silicon, Germanium,
and Tin Compounds, by A. D. Petrov.

GERMAN, per, Angew Chem, Vol LXXIII, 1961, pp 59-63.

TC 583

CIA/FDD XX-1054

NOT RELEASABLE TO FOREIGN NATIONALS

Sci - Chem, Min/Met

Oct 61

170,158

USIB INTERNAL USE ONLY

Acylation of Silicohydrocarbons and Synthesis
of Silicon-Containing α -Methylstyrenes, by
E. A. Chernyshev, Ye. N. Klyukina, A. D. Petrov,
5 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk,
No 9, 1960, pp 1601-1606.

CB

Sci.

172,202

Oct 61

Nitration of Aromatic Sila-Hydrocarbons in
Which the Aromatic Ring Occupies Various
Positions with Respect to the Silicon Atom,
by E. A. Chernyshev, M. E. Dolgaya, A. D.
Petrov, 5 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim
Nauk, No 8, 1960, pp 1424-1428.

CB

169, 416

Sci

Sep 61

Synthesis and Properties of 4-Alkyl- and 4,4'-
Dialkylbiphenyls of Composition $C_{16}-C_{32}$ and Their
Hydrides, by E. P. Kaplan, Z. I. Kazakova, A. D.
Petrov, 7 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXX, No 2, 1960,
pp 369-375.

CB

Sci

Apr 61

153,579

Interaction of 2, 2, 3, 3-Tetramethylpentanone-4 With
Alkylolithiums, by A. D. Petrov, Kao Ch'ing-lang, V. M.
Semenkin, 6 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXX, No 2, 1960,
pp 363-368.

CB

Sci

Apr 61

153,577

Synthesis of Diphenylalkanes by the Wurtz Reaction
in Tetrahydrofuran or Methylal, by A. D. Petrov,
E. P. Zakharov, Yu. M. Zaver'yayev, 8 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXX, No 9, 1960,
pp 2838-2845.

CB

170,687

Sci

Sep 61

Properties of C₁₁-C₂₈ Naphthene Hydrocarbons of
Variable Structure, by A. D. Petrov, B. D. Zaloga,
V. G. Malanicheva, 12 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXX, No 6,
1960, pp 1769-1780.

CB

Sed
Aug 61

182,610

Synthesis of Polymers Having Alternating Siloxane
and Hydrocarbon Units, by A. D. Petrov, V. M. Vdovin
5 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk,
No 6, 1959, pp 1139-1142.

CS

Sci

June 61

157,924

243, 176

Synthesis of 2-Alkyl- and 2-Aryl-Biphenyls, by
A. D. Petrov, E. P. Kaplan, 5 pp.

RUSSIAN, per, Iz Ak Nauk SSSR Otdel Khim Nauk, No 1,
1963, pp 161-165.

CE

Sci

Dec 63

245, 176

Reaction of tert-Butyl Lithium with Acetone, by
A. D. Petrov, E. B. Sokolova, Kao Ching-lang,
10 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XIX, No 4,
1963, pp 1107-1116.

GB

Sci
May 61

154, 062

The Reaction of 1-Naphthylmagnesium Bromide with
Esters of Mercaptocarboxylic Acids, by A. D. Fetkov,
O. M. Berezov, I. I. Bufatin, 7 pp.

RUSSIAN, *zhur Obshch Khim*, Vol. XXIX, No 12,
1959, pp 3902-3908.

GB

Sci

Nov 60

133,209

(NY-4844)

The Catalytic Hydrogenation and Polymerization of
Acetylene-Hydrogen Mixtures. The Synthesis of
Isobutylene From Acetylene and Hydrogen, by A. D.
Petrov, L. E. Antas, 8 pp.

RUSSIAN, per, Zaur Fiz Khim, Vol XIV, No 9/10,
1940, pp 1305-1311.

JPRS 7528

Sci. - Chem

Feb 61

129,358

Reaction of Symmetrical Tetraalkyldisiloxanes With
Dialkenyldialkylsilanes and With Symmetrical
Dialkenyltetraalkyldisiloxanes, by A. D. Petrov,
V. M. Vdovin, 3 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 5,
1959, pp 939, 940.

CB

Sci

Jun 61

153,263

Polymerization of Propene Over a Zinc Chloride Catalyst. Communication 4. Dehydrocyclopolymerization in the Polymerization of Propene Over Zinc Chloride, by L. I. Antsus, A. D. ~~El~~ Petrov, 4 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 12, 1959, pp 2199-2202.

CB

Sci
Oct 60

130,337

Addition of Hydride Silanes to Alkenylbenzenes in the
Presence of Chloroplatinic Acid, by A. D. Petrov,
E. A. Chernyshev, M. E. Dolgaya, 7 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXX, No 2, 1960,
pp 376-382.

CB

Sq1

Apr 61

153,580

61-15371

Petrov, A. D., Nikishina, G. I. and others.
 THE DEPENDENCE OF THE SURFACE-ACTIVE
 PROPERTIES AND WASHING CAPACITY OF SOLU-
 TIONS OF ALKYL BENZENE SULPHONATES ON
 THE LENGTH AND STRUCTURE OF THEIR ALKYL
 CHAIN (Zavisimost' Poverkhnostno-Aktivnykh Svoystv
 i Moyushchey Spособnosti Rastvorov Alkilbenzol-
 sulfonатов ot Velichiny i Struktury ikh Alkil'noy
 Tsepi). May 59 [8] p. 5 refs. C.T.S. no. 633.
 Order from LC or SLA ml\$1.80, ph\$1.80 61-15371

Trans. of Masloboyno-Zhировaya Promyshlennost'
 (USSR) 1958, v. 24, no. 8, p. 23-29.

Tests showed that the washing capacity of solutions of
 alkyl benzene sulphonates depends on the length of the
 chain and its branches: the longer and the less
 branched, the greater the washing capacity. Com-
 pounds having a straight or only slightly branched
 chain containing 12 carbon atoms are effective at
 higher temperatures than compounds having a
 (Materials, TT, v. 5, no. 8) (over)

1. Sulfonates--Surface properties
2. Detergents--Surface properties
3. Sulfonates--Molecular structure
- I. Petrov, A. D.
- II. Nikishina, G. I.
- III. CTS-633
- IV. Department of Scientific and Industrial Research (Gt. Brit.)

Office of Technical Services

Organomagnesium Synthesis of 2- and 3-(Trimethylsilyl)
Acrylic Acids and Vinyl Derivatives of Silicon,
Germanium, and Tin, by V. F. Mironov, A. D. Petrov,
N. G. Maksimova, 7 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 11,
1959, pp 1954-1960.

CB

Sci -
May 61.

153,091

Relative Reactivities of Some Organosilicon, Organo-
germanium, and Organotin Compounds, and Their Raman
Spectra, by V. F. Mironov, Yu. P. Ngorov, A. D.
Petrov, 7 pp.

RUSSIAN, per, Iz Ak Nauk SSSR, Otdel Khim Nauk, No 8,
1959, pp 1400-1407.

CB

Sci -
by 61

152,761

Synthesis and Properties of Salts of Acids and of
Sulfo Esters of Alcohols With Alkylaromatic
Hydrophobic Radicals, by A. D. Petrov, G. I. Nikishin,
V. N. Gromonitskaya, 4 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXX, No 3, 1960,
pp 645-648.

CB

Sel -
Apr 61

147,568

Synthesis and Properties of α, ω -Polychlorodisilanes, by V. M. Vdovin, A. D. Petrov, 7 pp.

RUSSIAN, per, Zhur Obshch Khim, Vol XXX, No 3, 1960, pp 838-844.

CB

Sci.
Apr 61

147,567